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# Weekly Payroll Jobs and Wages in Australia methodology

Reference period Week ending 25 July 2020

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## Explanatory notes

These weekly estimates are part of a suite of new products the ABS are releasing to provide up-to-date information on the impact of the COVID-19 coronavirus on people and businesses in Australia. This release provides indicative information on the economic impact of the COVID-19 coronavirus on employees, including changes in payroll jobs, changes in total wages paid, and changes in average weekly wages per job.

## Source

These weekly estimates are derived from Single Touch Payroll (STP) data, which is provided to the Australian Taxation Office (ATO) by businesses with STP-enabled payroll or accounting software each time the business runs its payroll. STP data includes both business and job level tax information and superannuation information. The data are combined with other

administrative data from the Australian taxation system to determine additional classification attributes, such as the age and sex of employees.

The ABS would like to acknowledge the critical support from the Australian Taxation Office (ATO) in enabling the ABS to produce these statistics.

## **Scope**

Payroll jobs reported to the ATO through STP are in scope of these estimates.

A payroll job is a relationship between an employee and their employing enterprise, where the employee is paid in the reference week through STP-enabled payroll or accounting software and reported to the ATO. Where an employee is paid other than weekly, the established payment pattern is used to identify jobs in weeks outside the payment week. For further information, please see 'Imputation' below.

Owner managers of unincorporated enterprises are not included in these estimates as they are not in scope of STP-enabled software reporting to the ATO.

Approximately 99% of employers the ATO classifies as 'substantial employers' (those with 20 or more employees) are reporting through STP. Small employers (those with 19 or less employees) began transitioning to STP on 1 July 2019 and over 80% are reporting through STP. As a result, not all jobs in the Australian labour market are captured within these estimates.

The estimates are considered experimental and use an index to provide an indication of movements in total jobs and total wages (rather than level estimates), for the purpose of assessing the economic impact of the COVID-19 coronavirus on employees.

## **Frequency and duration**

These estimates will be published fortnightly on Tuesdays during the COVID-19 coronavirus period. The timing has been optimised around when the largest proportion of both weekly and fortnightly payments are made (thereby minimising the contribution from imputation at the end point of the series).

These estimates have a 17 day time lag after the reference week. While estimates are published fortnightly, weekly data are available within the release.

## **Coverage**

These estimates are available at the state and territory and national level. All geographic variables are based on the individual's residential address as stated on their income tax return. Statistical Area 4 (SA4) estimates for payroll jobs only are updated on alternate

releases and published on Wednesdays following the main release. Where an address is not available from the income tax return the residential address as reported on the STP file is used.

Estimates are also provided for the 19 [Australia and New Zealand Standard Industry Classification \(ANZSIC\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0>) divisions, with selected sub-division estimates for payroll jobs only updated on alternate releases and published on Wednesdays following the main release. All industry variables are based on the ABS Statistical Business Register.

## **Methodology**

### **Calendarisation**

STP data is reported on a year-to-date cash accounting basis at the time the payment was provided to an employee rather than at the time the payment was earned. To produce indicative real time estimates of wages and jobs, the calendarisation method is used to convert STP data from a cash basis to an accrual basis.

The calendarisation method uses the start and end date of the payment period reported through STP to calculate the payment frequency, known as 'periodicity'. A daily pay rate is then calculated by dividing the total payment by the total number of days in the payment periodicity. For example, a payment made weekly will be divided by seven to calculate a daily pay rate. Where the commencement or termination date for a job occurs within a payment period, the periodicity for that job is adjusted to exclude the days before commencement or after termination.

As new businesses commence reporting through STP, the ABS determines when the business appears in the dataset for the first time and distributes the year to date wages across all past payment periods for the financial year. This ensures that weekly estimates are not an artefact of increased up-take of businesses onboarding to STP, however can cause revisions to earlier parts of the time series.

### **Imputation**

Payment data extracted from the STP system each week is always partially incomplete, given businesses have different payment frequencies. For example, a business with a fortnightly payroll will only provide STP data every second week. To produce reliable weekly statistics, an imputation method is used to account for differing reporting patterns.

If an employee has not yet had payment data reported and they have not been flagged for termination, it is assumed that their payment status is consistent with their previous reporting record. The previous calculated daily rate will be imputed for the current period.

The data indicates that 38% of employees are paid weekly; 47% are paid fortnightly; 11% paid monthly; 4% are paid quarterly or paid infrequently.

No imputation is required for employees paid weekly. Business reported data is included for all employees paid weekly due to the 17 day lag between the reference week and the release of estimates. Actual payments for most employees paid fortnightly and some employees paid monthly are also available.

Imputation is not applied for the small proportion of employees who are paid quarterly or infrequently as there is not an established pattern of payment to extrapolate forward.

No imputation is applied for new employees without historical payment information, until a pattern can be determined.

## **Aggregation**

Once STP data is converted to an accrual basis using the calendarisation method and imputation is applied, the data is aggregated to produce the following weekly estimates:

- Total Payroll Jobs: The average of the 7 days of employee counts.
- Total Wages Paid: The sum of all daily rates for all jobs for the week. This is the total value of wages for the week.
- Average Weekly Wage by job: This is calculated by dividing the total wages value by the total payroll jobs number.

## **Time series estimates**

The estimates are presented as an original series only. Seasonally adjusted and trend estimates are not yet available. A number of years of data will be required before seasonal patterns can be observed and adjusted for.

The calendarisation and imputation methodologies applied to the estimates account for calendar related variations, such as the number of days in a month, and different payment frequencies.

Note: All estimates presented in this publication are presented for weeks ending on a Saturday.

## **Summary of outputs**

Estimates are produced for weekly change in the number of payroll jobs, change in wages paid and change in average weekly wage by job. These estimates are available at the national, state and territory and [ANZSIC \(https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) division level by selected personal attributes, including sex and 10 year age

group. These estimates are presented as percentage change movements and indexes.

Statistical Area 4 and ANZSIC sub-division level estimates are updated on alternate releases for changes in payroll jobs only. These estimates are published on Wednesdays following the main release.

## Indexes number of jobs and total wages

The estimates include indexes to present changes in the labour market during the COVID-19 coronavirus period.

In order to compare changes over time, the week Australia recorded its 100th confirmed coronavirus case (i.e. week ending 14th March 2020) is used as the reference period for constructing the indexes and given an index value of 100.0.

Index values relative to the reference period are updated in each release to reflect revisions to underlying data. Index values commencing week ending 4 January 2020 are available via Table 4 in the Data downloads section to support users to undertake additional longer time series analysis. It is important to note the high degree of seasonality in the start of the series, which reflects the seasonal trend of a proportion of people joining or returning to employment following the Christmas and New Year holiday season. ABS analysis focuses on the COVID-19 period, which is not affected by a high degree of seasonality.

The indexes allow comparison between two points in time. The points in time can be adjacent (this week and the previous week) or many weeks apart. Movements in the index from one period to another can be expressed as either points or percentage change and these are rounded to one decimal place.

The following example illustrates the method of calculating changes in index points and percentage changes between any two periods:

### Total payroll wages - Australia index numbers

	Index number
Week ending 4 July 2020	98.3
Less week ending 6 June 2020	95.2
Change in index points	3.1
Percentage change	$3.1/95.2 \times 100 = 3.3\%$

These indexes differ from the ABS' suite of price indexes, including the Wage Price Index, which measure changes in price over time unaffected by quality or quantity and should not be directly compared.

### Concept of a payroll job

A payroll job is a relationship between an employee and their employing enterprise, where the employee is paid in the reference week through STP-enabled payroll or accounting software and reported to the ATO. Where an employee is paid other than weekly, the established payment pattern is used to identify jobs in weeks outside the payment week.

## **Data limitations and related revisions**

Please see the Data Limitations and Related Revisions technical note for information.

## **Hours worked, job attachment and employment status**

STP data does not include information on hours worked or hours paid for. Analysis of monthly hours worked can be found in [Labour Force, Australia \(cat. no. 6202.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0>) and the detailed releases (cat. no. 6291.0.55.001 (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.0.55.001>) and 6291.0.55.003 (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.0.55.003>)). STP data are also unable to account for job attachment where a payment has not been made, where a jobholder was temporarily stood down without pay.

The estimates do not include information on the employment status of employees, i.e. full time or part time. This will be explored as part of ongoing work between the ABS and the ATO. In the interim, this information is also available within the suite of Labour Force releases.

## **Privacy and confidentiality**

STP data is supplied by the ATO to the ABS under the Taxation Administration Act 1953, which requires that such data is only used for the purposes of administering the Census and Statistics Act 1905. Any discussion of data limitations or weaknesses is made within the context of using the data for statistical purposes, and is not related to the ability of the data to support the ATO's core operational requirements.

Legislative requirements to ensure privacy and secrecy of this data have been adhered to. In accordance with the Census and Statistics Act 1905, results have been confidentialised to ensure that they are not likely to enable identification of a particular person or organisation.

## **Acknowledgement**

The ABS would like to acknowledge the critical support from the Australian Taxation Office (ATO) in enabling the ABS to produce these statistics.

## **Technical note - Data limitations and related revisions**

This technical note outlines data limitations and related revisions in the Weekly Payroll Jobs and Wages in Australia series. It will be updated, as required, in subsequent releases.

Weekly Payroll Jobs and Wages in Australia estimates are derived from Single Touch Payroll (STP) data, which is provided to the ATO by businesses with STP-enabled payroll or accounting software. This data is provided each time the business runs its payroll. While STP effectively supports employer reporting obligations and ATO operational requirements, the system is not primarily designed to support the production of statistics. As a result, it is important to note some of the inherent limitations of the data.

The ABS recommends that users exercise caution when focusing on the most recent weekly change as these reflect a higher degree of reporting variability, imputation and subsequent revision.

## **Week on week revisions**

The ABS receive weekly STP data from the ATO and the explanatory notes broadly outlines how the ABS processes these data to produce timely weekly payroll jobs and wages information on an accrual basis.

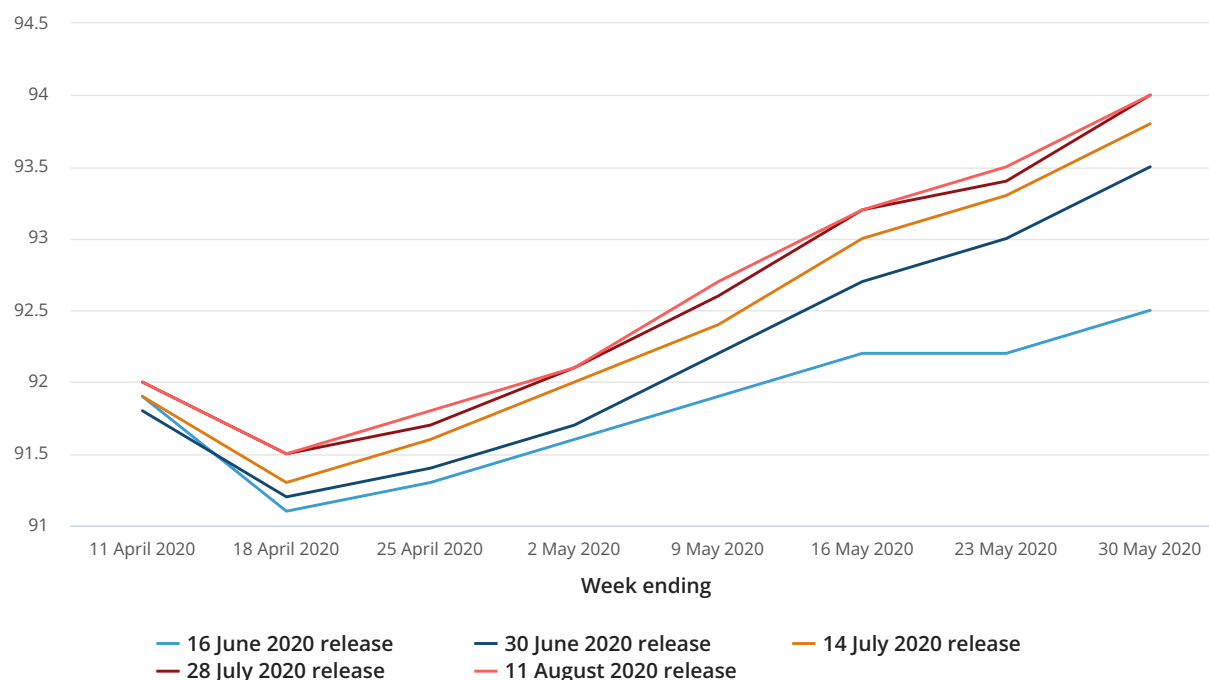
Payroll jobs and wages estimates (including percentage change movement and indexes) are revised in each release across the time series.

These revisions arise from:

- the aim to release data as close as possible to the period when the activity occurred
- the receipt of more complete STP data over time
- the incorporation of newly available businesses in STP reported data (more information below).

To demonstrate the impact of revisions in the data, the change in national weekly payroll jobs indexes are presented in the graph below. The example presents the changes to the payroll jobs index for the week ending 30 May 2020. The index (as published in the 16 June release) was 92.5 and in the most recent release (11 August), this has been revised to 94.0.

**Graph 1 - Selected revisions to payroll jobs index between 11 April and 30 May 2020**



Revisions are more frequent and have the greatest impact on the most recently reported information. As time since the reference period increases and more business reported data is received, the size of revisions decreases. Analysis indicates that the data for the most recent reference week at the time of initial publication is approximately 75-80% complete and can take several months to be fully complete (i.e. quarterly STP reporters).

To reduce the impact of week on week revisions, the ABS uses historical information to impute the most recent weeks data. The ABS is taking a cautious approach to imputation as factors influencing jobs can occur unexpectedly, for example, the surge in COVID-19 cases in Victoria in July.

## **Incorporating new employer reported data**

As new businesses commence reporting through STP, the ABS determines when the business appears in the dataset for the first time and distributes the year to date wages across all past payment periods for the financial year. This ensures that weekly estimates



best reflect change in the labour market over time through payment activities, rather than changes in the uptake of STP reporting by the businesses. This approach necessitates revisions across the time series.

Similarly, there can be a delay for new employees to appear in the STP data. By analysing the data over time, the ABS applies a coverage adjustment for this as part of producing the indexes.

## **Reporting variability**

Wage estimates are subject to a higher degree of reporting variability and revisions than payroll jobs, reflecting a greater degree of seasonal variation in payments, and changes in working hours and overtime. While the ABS accounts for employees being paid with different frequencies (weekly, fortnightly etc.), there are points in the year when additional reporting activity is more likely to occur, which may flow through to published estimates.

Reporting variability is higher at the end of the financial year, especially in the final weeks of June, as some accrued earnings may be paid (or reported) as a lumped amount. This makes it more challenging to apportion some payments to the weeks they were actually earned, in a timely manner.

Reduced wages through May 2020, which are more pronounced in industries that were particularly impacted by COVID-19, may reflect a combination of:

- Reduced wages being paid by COVID-19 affected employers, who may also have reduced hours over the period - particularly for jobs that weren't eligible for JobKeeper support;
- Seasonal changes in wages (including bonus payments); and
- Potential payroll reporting changes for some employers during May. This could include changes to payment frequency or payment categorisation, both of which could affect the imputation methodology and how payments are effectively apportioned onto an accruals basis.

The first 'JobKeeper' payments were received by employers in the first week of May 2020. When employers used these payments to pay employees, it is included in the wages indexes. Backpay to employees reported by businesses in early May has been converted, as best as possible onto an accruals basis and reflected in revised wages estimates through April. Further information on the treatment of JobKeeper in ABS economic statistics can be found in [Economic measurement during COVID-19: Selected issues in the Economic Accounts, May 2020 \(cat. no. 5261.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/5261.0?OpenDocument) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/5261.0?OpenDocument>).

## **Accruing end of financial year payments**

Towards the end of the financial year, unadjusted STP data includes higher than usual week-to-week changes in total wages paid. In particular, the reporting to the ATO by employers of fringe benefits tax amounts for eligible employees at the end of the financial year creates lumped payments that were visible in the week to week movements over June. This is most evident in the Health care and social assistance industry.

In preparing the Weekly Payroll Jobs and Wages release on 14 July 2020, the ABS determined that additional analysis was required to ensure these end of financial year payments are included in the wages series on an accruals basis. This treatment is consistent with the definition of wages and salaries used in the System of National Accounts. As a result, the ABS applied a smoothing treatment to wages in the Health care and social assistance industry through June 2020 to minimise the influence of lumped payments in the estimates released on 14 July.

With the receipt of more complete data for the end of the financial year, the ABS has undertaken additional analysis and applied an adjustment factor to accrue reported fringe benefits tax amounts observed in the unadjusted data across the 2019-20 financial year. This enhances the existing calendarisation methodology. This factor has been applied to all records that included reportable fringe benefits tax amounts not just those in Health care and social assistance. This adjustment was possible as reportable fringe benefits tax amounts are separately identified in the STP job level dataset. This adjustment methodology is not possible for other end of financial year payments such as bonuses as they are included in the wages data in the period they are paid (noting that bonuses can be paid at any time) and are not currently readily distinguishable. With the exception of reducing the variability of wages indexes over the month of June 2020, this adjustment has a minimal impact on the published indexes. More information about employer reporting of fringe benefits tax is available from the ATO website.

The adjustment factor will be applied for the upcoming financial year and will be revised at the end of each financial year using business reported data, potentially resulting in revisions to the indexes for the just completed financial year.

## **Seasonality**

Weekly Payroll Jobs and Wages in Australia estimates are presented as 'original' data series. The release does not include the other standard time series types of seasonally adjusted or trend data that are found in other labour statistics releases (e.g. Labour Force).

Generally, three to five years of data are required before good seasonally adjusted data can be produced. Since Single Touch Payroll (STP) is a relatively new program (with most large employers moving to the platform during 2018-19 and smaller employers through the

second half of 2019), it is not yet possible to produce seasonally adjusted series (with seasonal elements removed) or trend series (with both the seasonal elements and irregular fluctuations removed). This means that the changes in the estimates not only reflect COVID-19 related changes in the economy but also include seasonal changes in the labour market, particularly in wages.

Examples of seasonal characteristics which may be observed in the data include:

- High degree of seasonal change in the payroll jobs and wages data for January and February. Summer is a period of pronounced seasonality in Australia, with considerable labour market activity before Christmas, and a combination of public holidays, school holidays and lower business activity in the period after Christmas.
- A number of public and school holidays in late April 2020 may have impacted on the level of wages paid during this period.
- Annual bonuses are more prevalent in the Mining and Financial and insurance services industries in March than other industries.

It is important to note that the increase in wages and jobs between January and March 2020 is not a result of more employers reporting through STP, as the methodology controls for changes in employer coverage to ensure that the index series are as comparable as possible over time.

## **Future work**

As the compilation of Weekly Payroll Jobs and Wages in Australia by the ABS evolves, there are reporting patterns which require further analysis that are not always possible to complete within the regular fortnightly release cycle. Outcomes from analysis may result in changes to methodology or revisions to data.

## **Technical note - Producing weekly payroll jobs and wages in Australia**

Weekly Payroll Jobs and Wages in Australia measures weekly change in the total number of payroll jobs and total wages at the national, state and territory and ANZSIC industry level by selected personal attributes of jobholders, including sex and age group. Statistical Area 4 (SA4) and industry sub-division estimates are also available on alternate releases for changes in payroll jobs only.

The estimates are compiled using Single Touch Payroll (STP) data reported to the Australian Taxation Office (ATO) by businesses with STP-enabled payroll or accounting software each time the business runs its payroll. Approximately 99% of substantial employers (20 or more

employees) and over 80% of small employers (those with 19 or less employees) are reporting through STP.

The STP data are reported on a cash basis (the time when the payment was made) rather than an accrual basis (the time when the payment was earned). Therefore to produce real time estimates of weekly jobs and earnings, the STP data needs to be converted from a cash basis to as close to an accrual basis as possible, using a calendarisation method.

In addition to the cash reporting, the STP payment data that are extracted for a specific week cycle will be incomplete due to different payment and reporting frequencies. For example, a business that normally pays its employees on a fortnightly basis will not have any payment data available in every weekly STP dataset. To produce reliable statistics on a timely basis, an extrapolation imputation method is applied to account for these different payment and reporting habits.

## **The calendarisation method**

The method includes the following steps:

- The periodicity, or payment frequency, is calculated using the start and end date of the payment period;
- A daily pay rate is then calculated by dividing the total payments by the payment frequency. For example, weekly pay is divided by seven;
- Where the start or termination date for a job occurs within the payment period, an adjustment is made to the periodicity for that job to exclude the days before commencement (or after termination).

This method allows the data to be aggregated and analysed for different reporting periodicities as all the records are broken down to a common frequency (daily).

## **The imputation method**

The STP payment data that are extracted for a specific week cycle are always partially incomplete due to varying payment and reporting frequencies. For example, a business with a monthly payroll will only provide STP data every fourth week.

The data indicates that 38% of employees are paid weekly; 47% are paid fortnightly; 11% are paid monthly; 4% are paid quarterly or infrequently.

To produce reliable statistics on a weekly basis, an imputation method is used to account for differing reporting patterns, with revisions made when additional data become available.

If an employee has not yet had payment data reported and they have not been flagged for termination, it is assumed that their payment status is consistent with their previous

reporting record. The previous calculated daily rate will be imputed for the current period.

No imputation is required for employees paid weekly. Business reported data is included for all employees paid weekly due to the 17-day lag between the reference week and the release of estimates. Actual payments for most employees paid fortnightly and some employees paid monthly are also available.

Imputation is not applied for the small proportion of employees who are paid quarterly or infrequently as there is not an established pattern of payment to extrapolate forward.

No imputation is applied for new employees without historical payment information, until a pattern can be determined. This means that there is an inherent and unavoidable lag before new payroll jobs will appear in the data, after the initial pay period, particularly for new jobs with employers who have less frequent payment and reporting periods.

## Aggregation

Once STP data is converted to an accrual basis using the calendarisation method and imputation is applied, the data is aggregated to produce the following weekly estimates:

- **Total Payroll Jobs:** The average of the 7 days of payroll job counts. A payroll job is a relationship between an employee and their employing enterprise, where the employee is paid in the reference week through STP-enabled payroll or accounting software and reported to the ATO. Where an employee is paid other than weekly, the established payment pattern is used to identify jobs in weeks outside the payment week.
- **Total Wages:** The sum of all daily rates for all jobs for the week. This is the total value of wages for the week. For employees who work for the whole week in a specific job, the weekly wages are the sum of 7 days of the daily rate. For the employees who work partially for the whole week in a specific job (i.e. who just started the work or terminated the work during this period), the weekly wages are the sum of the actual periodicity for that job excluding the days before commencement (or after termination).
- **Average weekly wage by job:** This is calculated by dividing the total wages value by the total payroll jobs number.
- These estimates are aggregated to the national, state and territory and [ANZSIC \(https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) division level by selected personal attributes, including sex and 10-year age groups.

## Revisions

The data underlying these estimates are revised for each release, and reflected in percentage change movements and indexes.

Revising underlying data across the time series allows the estimates to incorporate newly available business reported data and replace previously imputed data with actual data.

As new businesses commence reporting through STP, the ABS determines when the business appears in the dataset for the first time and distributes the year to date wages across all past payment periods for the financial year. This ensures that weekly estimates best reflect change in the labour market over time, rather than changes in the coverage of businesses. This approach will result in revisions across the time series.

Further information, please see the Data Limitations and Related Revisions technical note.

## **More information**

For more information on this methodology please email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au) (<mailto:labour.statistics@abs.gov.au>).

## **Technical note - Understanding the difference between weekly payroll jobs and labour force employment statistics**

The ABS is releasing experimental estimates of changes in payroll jobs and changes in wages in Weekly Payroll Jobs and Wages in Australia. The estimates are compiled in near real time and published fortnightly, using Single Touch Payroll (STP) data provided to the Australian Taxation Office (ATO) by businesses with STP-enabled payroll or accounting software each time the business runs its payroll.

This information provides complementary insights to the Labour Force statistics on employment. While changes in payroll jobs can provide an indication of changes in how employed the population is, it is important to remember that the measures are different.

The table below highlights key differences that should be considered when comparing changes in payroll jobs with changes in employment.

### **Table 1 - Weekly payroll jobs and wages in Australia and labour force statistics**

Weekly Payroll Jobs and Wages in Australia		Labour Force statistics
Focus of the statistics	Payroll jobs.	People.
Types of employment	Payroll jobs for which a payment was reported to the ATO through STP or there is an established payment pattern.	<p>All employed people, including:</p> <p>Employees (including Owner managers of incorporated enterprises);</p> <p>Owner managers of unincorporated enterprises;</p> <p>Contributing family workers.</p> <p>Non-employees (OMUEs and CFWs) account for around 9% of employed people.</p>
Whether paid	Only includes payroll jobs for which a payment was reported to the ATO through STP or there is an established payment pattern.	Includes all employed people who were paid or who had a job but weren't paid (on unpaid leave, temporarily stood down without pay, etc).
Multiple job holding	Each job is counted separately, irrespective of whether it is worked by a multiple job holder.	Around 6% of employed people are multiple job holders, particularly young people.

## More information

For further information, please email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au)  
[\(mailto:labour.statistics@abs.gov.au\)](mailto:labour.statistics@abs.gov.au)

## Glossary

### Show all

#### Accrual basis

Recording wages when they are earned, accrued or incurred regardless of when payment is made or received.

#### Australian Bureau of Statistics Business Register

A register of all Australian businesses and organisations maintained by the Australian Bureau of Statistics (ABS) for the purpose of producing statistical frames and business demography outputs. It contains identifying and classificatory data for each business and organisation.

Information to populate the ABS Business Register is largely sourced from the Australian Business Register.

The ABS Business Register consists of two subpopulations, the profiled population and the non-profiled population. The ABS Business Register uses an economic units model to describe the characteristics of businesses and the structural relationships between related businesses.

## **Australian Business Number**

A unique identifier. To be entitled to an Australian Business Number (ABN), an organisation must be one or more of the following:

- a company registered under the Corporations Act 2001
- an entity carrying on an enterprise in Australia
- a government entity
- a non-profit sub-entity for Goods and Services Tax purposes
- a superannuation fund.

A non-resident entity may be entitled to an ABN if they are carrying on an enterprise in Australia and/or, in the course of carrying on an enterprise, the entity makes sales that are connected with Australia.

## **Australian Business Register**

The data store containing details about businesses and organisations that have registered for an Australian Business Number. More information can be found on the [ABR website \(https://abr.gov.au/\)](https://abr.gov.au/).

## **Cash basis**

Recording the wage payment in the pay period when the payment was received by the employee.

## **Commencement and termination dates**

Commencement and termination dates associated with each job as reported through Single Touch Payroll.

## **Employee**

Persons who work for a private or public sector employer, where the employee has received payment in the reference week through Single Touch Payroll (STP) enabled software and reported to the Australian Taxation Office (ATO).

## **Employer**

An organisation with an Australian Business Number that provides employment income to one or more people, and reports through the ATO STP system.

## **Geography**

See Statistical area entries. For more information, see the [Australian Statistical Geography Standard \(ASGS\): Volume 1 – Main Structure and Greater Capital City Statistical Areas](#)



(<https://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/871A7FF33DF471FBCA257801000DCD5F?OpenDocument>) (cat. no. 1270.0.55.001).

## **Industry**

A homogenous grouping of economic activities undertaken to produce goods and services. The [Australian and New Zealand Standard Industrial Classification](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0>) (cat. no. 1292.0) is used to classify an entity to an industry based on its dominant activity.

## **Industry division**

The broadest grouping of industries within the Australian and New Zealand Standard Industrial Classification. The main purpose of the industry division level is to provide a limited number of categories, which give a broad overall picture of the economy. There are 19 mutually exclusive divisions. For more information see the [Australian and New Zealand Standard Industrial Classification](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0>) (cat. no. 1292.0).

## **Industry sub-division**

The second broadest grouping of industries within the Australian and New Zealand Statistical Industrial Classification. Industry subdivisions are built up from the industry groups which, in turn, are built up from industry classes. For more information see the [Australian and New Zealand Standard Industrial Classification](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0>) (cat. no. 1292.0).

## **Job**

See payroll job.

## **Not available (NA)**

Statistic is not available. This can be to protect the confidentiality of data providers or to prevent misinterpretation of statistics due to poor quality.

## **Owner-manager of unincorporated enterprises (OMUE)**

A person who operates their own unincorporated enterprise, which does not possess a separate legal identity to that of its owner(s), or engages independently in a profession or trade.

OMUEs can also be referred to as self-employed. Owner managers of unincorporated enterprises are not included in these estimates as they are not in scope of STP-enabled software reporting to the ATO.

Unincorporated enterprises are further defined in the [Standard Economic Sector Classifications of Australia \(https://www.abs.gov.au/ausstats/abs@.nsf/mf/1218.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1218.0) (cat. no. 1218.0).

## **Payroll job**

A payroll job is a relationship between an employee and their employing enterprise, where the employee is paid in the reference week through STP-enabled payroll or accounting software and reported to the ATO. Where an employee is paid other than weekly, the established payment pattern is used to identify jobs in weeks outside the payment week.

## **Single Touch Payroll**

The Single Touch Payroll (STP) system sends taxation and superannuation information from a business' STP-enabled payroll or accounting software to the ATO as a business runs its payroll.

## **Sex**

The self reported sex of a person as recorded by the ATO. Binary coding to female and not female is undertaken for privacy and confidentiality purposes.

## **Statistical area level 4**

Statistical area level 4 (SA4) regions are specifically designed to reflect labour markets within each state and territory within population limits. In regional areas, SA4s tend to have lower populations (100,000 to 300,000), while in metropolitan areas, SA4s tend to have larger populations (300,000 to 500,000).

## **Type of activity unit**

The statistical unit for more significant and diverse businesses in the profiled population. A type of activity unit (TAU) is a constructed unit that can practically group and report on homogenous production activities at the industry sub-division level.

In this publication, the TAU is used to represent employers in the profiled population.

## **Type of legal organisation**

All legal entities on the ABS Business Register are classified according to their type of legal organisation, of which there are three types:

- incorporated private sector entities
- unincorporated private sector entities
- public sector entities.

The type of legal organisation indicates whether a business is part of the private or public sector and the type of ownership structure. For more information see the [Standard Economic Sector Classifications of Australia \(https://www.abs.gov.au/ausstats/abs@.nsf/mf/1218.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1218.0) (cat. no. 1218.0).

## Wages

Wages include salary payments and allowances, labour hire payments and foreign income, as well as the value of payments in kind (where a fringe benefit amount is recorded). Bonuses are typically included where they are reported in the same field as normal payments. Wages are calculated as gross amounts, prior to taxation and deductions.

Wages exclude payments to employee's superannuation as well as severance and termination payments. Wages are only available for payroll jobs and do not include income from own businesses or other sources.

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## Quality declaration

### Institutional environment

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see [ABS Institutional Environment \(https://www.abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/10ca14cb967e5b83ca2573ae00197b65!OpenDocument\)](https://www.abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/10ca14cb967e5b83ca2573ae00197b65!OpenDocument).

These estimates use Single Touch Payroll (STP) data provided to the Australian Taxation Office (ATO) by businesses with STP-enabled payroll or accounting software each time the business runs its payroll.

STP data is supplied by the ATO to the ABS under the Taxation Administration Act 1953, which requires that such data is only used for the purposes of administering the Census and Statistics Act 1905. Any discussion of data limitations or weaknesses is made within the context of using the data for statistical purposes, and is not related to the ability of the data to support the ATO's core operational requirements.

These estimates also include Australian Business Register (ABR) data supplied by the Registrar to the ABS under A New Tax System (Australian Business Number) Act 1999, which requires that such data is only used for the purpose of carrying out functions of the ABS. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes, and is not related to the ability of the data to support the ABR's core

operational requirements.

Legislative requirements to ensure privacy and secrecy of this data have been adhered to. In accordance with the Census and Statistics Act 1905, results have been confidentialised to ensure that they are not likely to enable identification of a particular person or organisation.

All personal information is handled in accordance with the Australian Privacy Principles contained in the Privacy Act 1988.

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## Relevance

These estimates provide indicative weekly information on the economic impact of the COVID-19 coronavirus on employees, including changes in payroll jobs, changes in wages paid and changes in average weekly wage per job.

The scope of this data includes all payroll jobs reported to the ATO through STP. Approximately 99% of substantial employers (those with 20 or more employees) are reporting through STP. Small employers (those with 19 or less employees) begun transitioning to STP on 1 July 2019 and over 80% are currently reporting through STP. As a result, not all jobs in the Australian labour market are captured in these estimates.

Data is presented at the national level, state and territory level, and by the 19 Australia and New Zealand Standard Industry Classifications (ANZSIC) divisions. Statistical Area 4 (SA4) and industry sub-division estimates are updated in alternate releases for payroll jobs only.

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## Timeliness

The ABS receives tax data from the ATO on a weekly basis. Estimates are published with a 17 day time lag to the end of the reference week. While estimates are published fortnightly, weekly data is available within the release.

Statistical Area 4 (SA4) and industry sub-division estimates are updated in alternate releases, on the Wednesday following the main release.

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## Accuracy

Weekly Payroll Jobs and Wages in Australia is subject to the following sources of error:

- Conceptual misalignment. The Australian tax system is purpose-built and complex, and in some cases it is difficult to determine how a particular STP item should be used to describe impact on payroll jobs and wages and in some cases the item can be a partial conceptual match. While all care is taken, some income items are subject to this type of

validity error. Coherence with other sources indicates that this has a low impact on aggregate series.

- Measurement error. This is likely to be present in both person and business information used. Most measurement error is unable to be determined or corrected; however, coherence with other similar statistics demonstrates that this has a low impact on aggregate series.
- Incomplete information. While the majority of large employers are already reporting through STP, many smaller businesses are still in the process of transitioning to STP. Approximately 99% of substantial employers (20 or more employees) and over 80% of small employers (19 or less employees) are reporting through STP. Payment data extracted from the STP system each week is incomplete as businesses have different payment frequencies. For example, a business with a fortnightly payroll will only provide STP data every second week. An imputation method is used to account for differing reporting patterns. Owner manager of unincorporated enterprises are also not included in these estimates because they are not in scope of STP-enabled software reporting to the ATO.

The data underlying Weekly Payroll Jobs and Wages in Australia is revised for each release, as new business reported data becomes available.

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## Coherence

There are differences between Weekly Payroll Jobs and Wages in Australia estimates and similar statistics produced by the ABS. When compared to other ABS sources, the change in payroll jobs, change in wages paid and change in average weekly wage per job in these estimates may differ due to:

- differences in the concepts, scope and methodology used in Weekly Payroll Jobs and Wages in Australia and those used in other household and business surveys.
- Weekly Payroll Jobs and Wages in Australia contains a combination of administrative data collected for taxation purposes from businesses, whereas other ABS data sources are compiled for the explicit purpose of producing statistics.
- unreported cash in hand payments, which are excluded from Weekly Payroll Jobs and Wages in Australia but may be included in household and business surveys.
- Weekly Payroll Jobs and Wages including information relating a reference week, rather than a particular point in time.

Weekly Payroll Jobs and Wages provides a view of jobs, whereas the Labour Force survey presents a view of employed persons. The difference being those people who hold more than one job at a time. The ABS estimates there are around 1 million secondary jobs in the economy.

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## Interpretability

Payroll job movements reference all payroll jobs identified within the reference period and therefore don't reflect a single point-in-time measure. The explanatory notes and glossary for this publication provide further information that can help to interpret these statistics.

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## Accessibility

For more information about Weekly Payroll Jobs and Wages in Australia, please [contact us online \(https://www4.abs.gov.au/web/survey.nsf/inquiryform/\)](https://www4.abs.gov.au/web/survey.nsf/inquiryform/) or phone us on 1300 135 070.

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## Abbreviations

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[Show all](#)

\$	dollars
'000	thousand
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ABSBR	Australian Bureau of Statistics Business Register
ACT	Australian Capital Territory
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASGS	Australian Statistical Geography Standard
ATO	Australian Taxation Office
Aust.	Australia
cat. no.	catalogue number
ETFN	Encrypted Tax File Number
excl.	excludes or excluding
Govt	Government
ITR	Individual Tax Return
LE	Legal Entity
LEED	Linked Employer-Employee Dataset
LFS	Labour Force Survey
m	million
NA	Not Available
no.	number
NSW	New South Wales
NT	Northern Territory
OMUE	Owner manager of unincorporated enterprise
PIT	Personal Income Tax
pts	Index points
QBIS	Quarterly Business Indicators Survey
Qld	Queensland
SA	South Australia
SA4	Statistical Area Level 4
SIH	Survey of Income and Housing
STP	Single Touch Payroll
Sub-div	Sub-division
Tas.	Tasmania
TAU	Type of Activity Unit
TOLO	Type of Legal Organisation
TFN	Tax File Number

Unincorp.	Unincorporated
Vic.	Victoria
WA	Western Australia